



## UBC Vancouver Campus – 2014 Greenhouse Gas Emissions Inventory

Scope	Component [a]	Usage Data	GHG Emissions (tCO <sub>2</sub> e)
Scope 1 – Direct	Core Buildings [b]		
	Natural gas for steam	553,107 GJ	27,518
	Natural gas direct use	85,980 GJ	4,278
	Heating oil for steam	49 GJ	3
	Biomass facility [c]	118,995 GJ	343
	Renewable Natural Gas [d]	53,202 GJ	16
	Ancillary buildings [e]		
	Natural gas for steam	150,013 GJ	7,463
	Natural gas direct use	85,174 GJ	4,238
	Heating oil for steam	12 GJ	1
	Biomass facility [c]	31,521 GJ	90
	TRIUMF – Natural gas direct use (1/11 share) [f]	1,197 GJ	60
	Fleet		
	Gasoline	354,455 L	805
Biodiesel	115,764 L	312	
Propane	1,465 L	2	
Scope 2 – Indirect	Core Buildings – Electricity	157,864,134 kWh	1,591
	Ancillary Buildings – Electricity	52,650,602 kWh	530
	TRIUMF – Electricity (1/11 share) [f]	5,916,495 kWh	60
Scope 3 – Optional	Paper	87,111 PKG	506
	Staff and faculty air travel		12,048
	Solid waste [g]		893
	Commuting [g]		30,726
	Building lifecycle [g]		11,796
<b>Total Campus emissions offset under GGRTA (Scope 1, 2, and Paper) [h]</b>			<b>47,814</b>

[a] Fugitive emissions have been deemed out of scope as they were estimated to comprise less than 1% of campus emissions.

[b] Core buildings comprise of academic and administrative buildings.

[c] UBC is required to offset the CH<sub>4</sub> and N<sub>2</sub>O portions of biomass combustion. In addition, the Bioenergy Research and Demonstration Facility (BRDF) consumes a small amount of natural gas upon start-up/shutdown.

[d] UBC is required to offset the CH<sub>4</sub> and N<sub>2</sub>O portions of renewable natural gas.

[e] Ancillary buildings include student housing, conference, athletic & parking facilities.

[f] UBC owns a 1/11<sup>th</sup> share of TRIUMF. This inventory includes 1/11<sup>th</sup> of the facility's estimated usage and emissions.

[g] These emissions have been estimated from published conversion factors. Improvements to methodologies may allow for other Scope 3 components to be included in future inventories.

[h] Values may not sum precisely due to rounding. This table shows only the campus emissions that were offset in 2014. An additional 4,069 tCO<sub>2</sub>e associated with UBC Properties Trust and off-campus properties were also offset in 2014.

To read the full 2014 Carbon Neutral Action Report, please visit: <http://sustain.ubc.ca/our-commitment/strategic-plans-policies-reports/annual-reports>